



PTO/SB/08A/B (09-06)

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| Substitute for form 1449/PTO | | | | Complete if Known | |
| | | | | Application Number | 10/614,333-Conf. #5952 |
| INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) | | | | Filing Date | July 3, 2003 |
| | | | | First Named Inventor | R. Rogers YOCUM |
| | | | | Art Unit | 1652 |
| | | | | Examiner Name | C. L. Fronda |
| Sheet | 1 | of | 2 | Attorney Docket Number | BGI-154B |

| U.S. PATENT DOCUMENTS | | | | | |
|-----------------------|--------------------------|--|--------------------------------|--|---|
| Examiner Initials* | Cite No. ¹ | Document Number | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | Number-Kind Code ² (if known) | | | |
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| | A4* | US-6,171,845-B1 | 01-09-2001 | Elischweski et al. | |
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| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
| | | Country Code ³ -Number ⁴ -Kind Code ⁵ (if known) | | | | |
| C.F. | B1 | EP-0493060-A2 | 07-01-1992 | Takeda Chemical Industries, Ltd. | | |
| | B2 | EP-0590857-B1 | 04-06-1994 | BASF Aktiengesellschaft | | |
| | B3 | WO-97/10340-A1 | 03-20-1997 | Takeda Chemical Industries, Ltd. | | |
| | B4 | WO-98/18954-A1 | 05-07-1998 | Monsanto Company | | |
| | B5 | EP-1006189-A2 | 06-07-2000 | Degussa-Hüls Aktiengesellschaft et al. | | Abstr. |
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| | B7 | EP-1001027-B1 | 05-06-2004 | Degussa AG | | Abstr. |

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * CITE NO.: Those application(s) which are marked with an single asterisk (*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(III)) because that application was filed after June 30, 2003 or is available in the IFW. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

| NON PATENT LITERATURE DOCUMENTS | | | |
|---------------------------------|--------------------------|---|----------------|
| Examiner Initials | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
| C.F. | C1 | Baigori, Mario et al., "Isolation and Characterization of <i>Bacillus subtilis</i> Mutants Blocked in the Synthesis of Pantothenic Acid," <i>Journal of Bacteriology</i> , Vol. 173(13):4240-4242 (1991) | |
| | C2 | Downs, Diana M., "Evidence for a New, Oxygen-Regulated Biosynthetic Pathway for the Pyrimidine Moiety of Thiamine in <i>Salmonella typhimurium</i> ," <i>Journal of Bacteriology</i> , Vol. 174(5):1515-1521 (1992) | |
| | C3 | Downs, Diana M. et al., "apbA, a New Genetic Locus Involved in Thiamine Biosynthesis in <i>Salmonella typhimurium</i> ," <i>Journal of Bacteriology</i> , Vol. 176(16):4858-4864 (1994) | |

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| Examiner Signature | /Christian Fronda/ | Date Considered | 05/22/2007 |
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| Sheet | 2 | of | 2 | Attorney Docket Number | BGI-154B |

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| C.F. | C4 | Elischewski, Frank et al., "Pantothenate production in <i>Escherichia coli</i> K12 by enhanced expression of the <i>panE</i> gene encoding ketopantoate reductase," <i>Journal of Biotechnology</i> , Vol. 75:135-146 (1999) | |
| | C5 | Frodyma, Michael E. et al., "ApbA, the Ketopantoate Reductase Enzyme of <i>Salmonella typhimurium</i> Is Required for the Synthesis of Thiamine via the Alternative Pyrimidine Biosynthetic Pathway," <i>The Journal of Biological Chemistry</i> , Vol. 273(10):5572-5576 (1998) | |
| | C6 | Frodyma, Michael E. et al., "The <i>panE</i> Gene, Encoding Ketopantoate Reductase, Maps at 10 Minutes and Is Allelic to <i>apbA</i> in <i>Salmonella typhimurium</i> ," <i>Journal of Bacteriology</i> , Vol. 180(17):4757-4759 (1998) | |
| | C7 | Merkel, William K. et al., "Characterization and sequence of the <i>Escherichia coli panBCD</i> gene cluster," <i>FEMS Microbiology Letters</i> , Vol. 143(2-3):247-252 (1996) | |
| | C8 | Primerano, Donald A. et al., "Role of Acetohydroxy Acid Isomeroreductase in Biosynthesis of Pantothenic Acid in <i>Salmonella typhimurium</i> ," <i>Journal of Bacteriology</i> , Vol. 153(1):259-269 (1983) | |

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